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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,360	04/01/2004	Shoulian Zhu	G0723.10U	8262
29633	7590	11/28/2007		
ROGERS TOWERS, P.A. 1301 RIVERPLACE BOULEVARD, SUITE 1500 JACKSONVILLE, FL 32207			EXAMINER JOHNSON, VICKY A	
			ART UNIT	PAPER NUMBER
			3682	
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			11/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/815,360	Applicant(s) ZHU, SHOULIAN	
	Examiner Vicky A. Johnson	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, it is unclear if the threading recited is the same threading of claim 1.

For this office action it will be the same.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Parrish et al (US 5,718,151).

Parrish et al disclose a steering wheel mounting assembly comprising: a shaft (12) a coupling member (26) positioned on said shaft (see Fig 1); a steering wheel comprising a rim (17), a hub (14) and at least one spoke (16) connecting said rim to said hub, said hub having an open rear end, external threading (22), a bore (20) and a closed face (see Fig 1), and a tightening nut (30) disposed about said shaft and abutting

said coupling member (9), said tightening nut joined to said hub (14) of a steering wheel (see Fig 1).

Re claim 3, said hub (14) further comprises threading (22) adjacent said open rear end (see Fig 1), and wherein said tightening nut (30) comprises a substantially closed rear end, an annular wall having threading (see Fig 1), an open front end and a coaxial opening (see Fig 1).

Re claim 4, said coaxial opening is larger than said shaft (12) and smaller than said coupling member (9, see Fig 1).

Re claim 5, said threading (22) on said hub is external and said threading (unnumbered) on said tightening nut is internal (see Fig 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parrish et al (US 5,718,151) in view of Kraft (US 1,804,993).

Parrish et al disclose the mounting assembly as described above, but does not disclose hub anti-rotation means, and shaft anti-rotation means.

Kraft teaches the use of a hub anti-rotation means (18, 10, 15, 16) for precluding relative independent rotational movement between a hub (3, 4) and a coupling member (11).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assembly of Parrish et al to include anti-rotation means as taught by Kraft in order to increase the driving connection between the steering wheel and the shaft.

Re claim 7, Kraft shows said hub anti-rotation means comprises at least one key and at least one slot corresponding to said key (see Fig 6).

Re claim 8, Kraft shows shaft anti-rotation means (unnumbered keyway for spline on shaft, see Fig 7) for precluding relative independent rotational movement between said shaft (not shown, but inherently included) and said coupling member (11).

Re claim 9, Kraft shows said shaft anti-rotation means comprises at least one key and at least one slot corresponding to said key (see Fig 7).

Re claim 10, Kraft shows said bore (11) of said hub is tapered (see Fig 7), and further wherein said coupling member comprises a tapered main body, a large diameter rear end (see Fig 7), a small diameter forward end (see Fig 7), and a tapered bore (see Fig 7).

7. Claims 2 and 11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parrish et al (US 5,718,151) in view of Kraft (US 1,804,993) and Broughton (US 6,257,088).

Parrish et al disclose an assembly as described above, but does not disclose the shaft having a threaded end, and a shaft nut positioned on the threaded end of the shaft.

Broughton teaches the use of a shaft (12) having a threaded end (28) and a shaft nut (96) positioned on the threaded end of the shaft (see Fig 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assembly of Parrish et al to include a shaft as taught by Broughton in order to provide a fine adjustment between the steering wheel and the shaft.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vicky A. Johnson whose telephone number is (571) 272-7106. The examiner can normally be reached on Monday-Friday (7:00a-3:30p).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

 11/25/07
Vicky A. Johnson
Primary Examiner
Art Unit 3682